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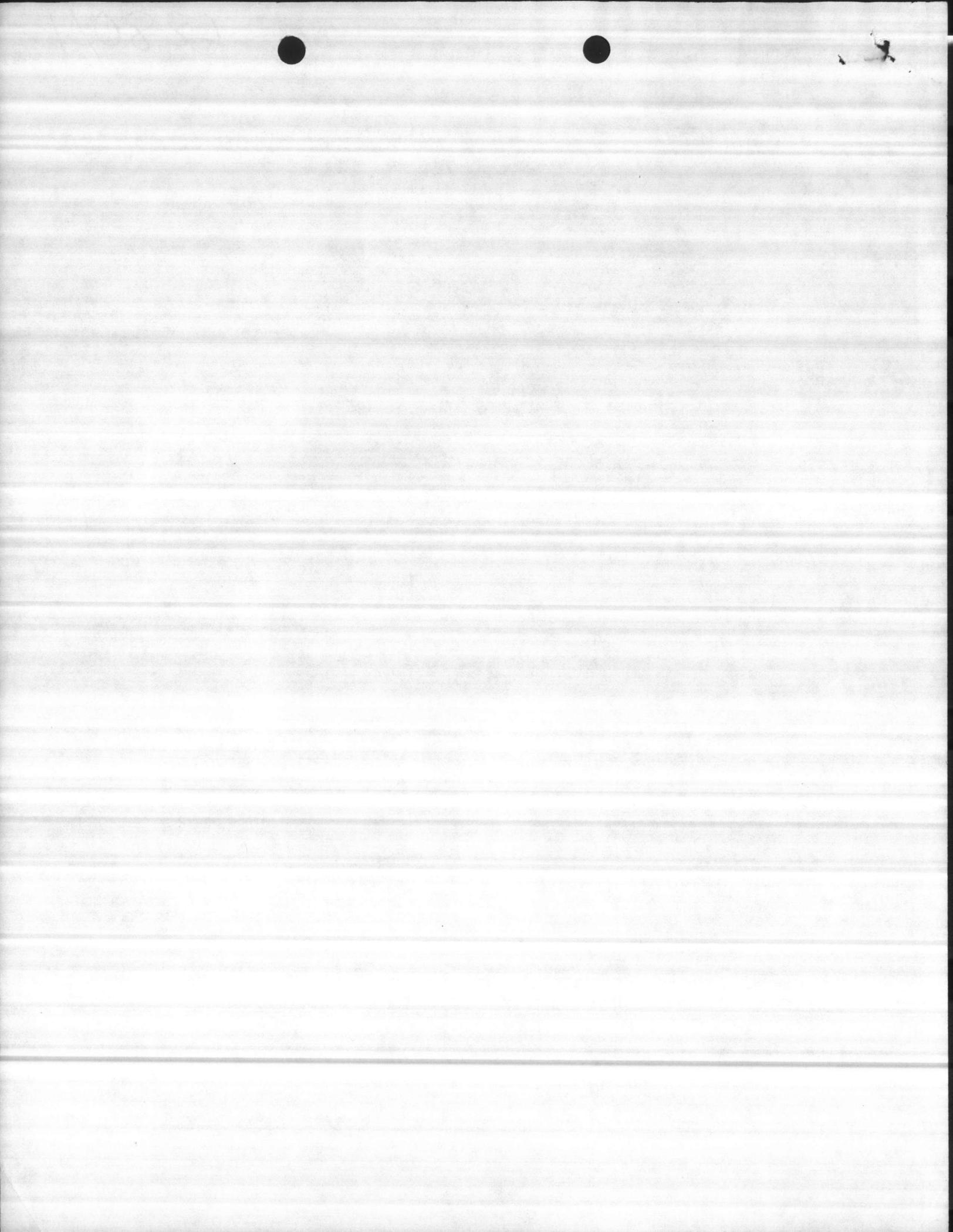
REPORT OF SANITARY SURVEY

HURST BEACH AREA

AREA C-4

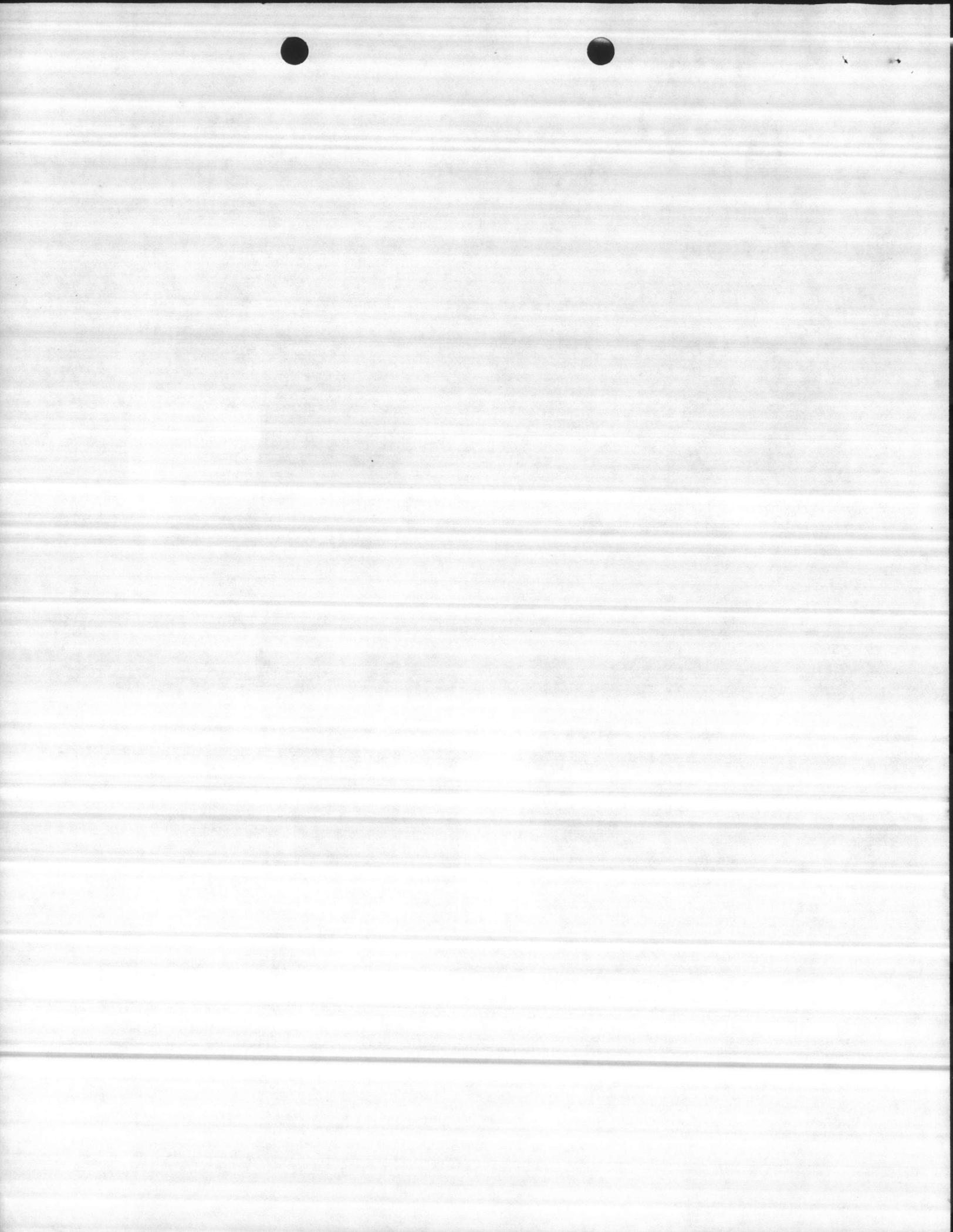
NOVEMBER 1981 - OCTOBER 1982

JANUARY 1983



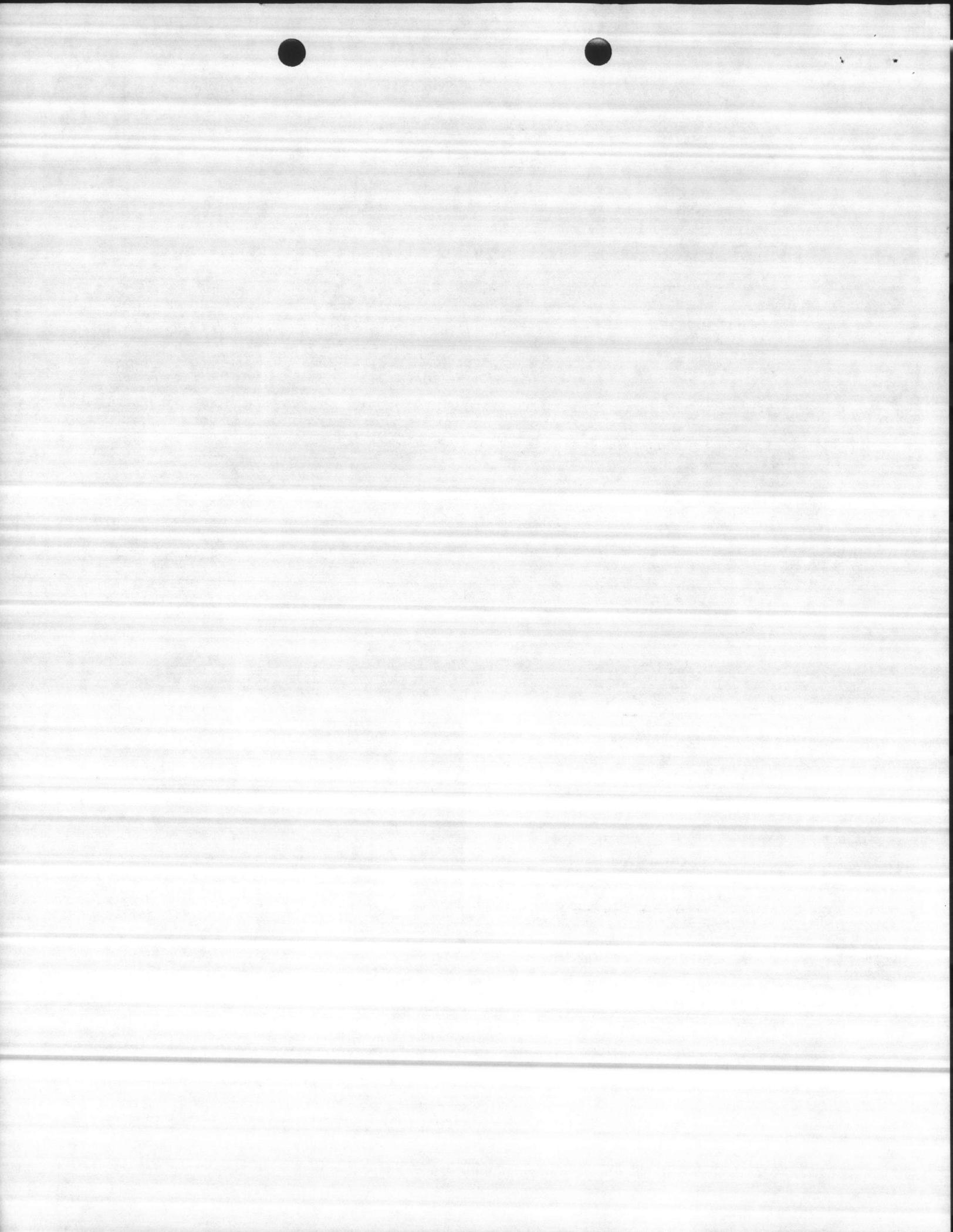
AREA C-4

- EXHIBIT I            AREA MAP AND STATION LOCATIONS
- EXHIBIT II           SHORELINE SURVEY ROUTE
- EXHIBIT III          SEWAGE TREATMENT PLANT, CAMPGROUND AND WATER TREATMENT  
PLANT LOCATIONS
- EXHIBIT IV           BACTERIOLOGICAL RESULTS AND MPN MEDIANS
- EXHIBIT V            PROCLAMATION AND CLOSED AREA MAP



Preface

Total Acreage.....500.  
Prohibited Acreage.....85.  
Oyster Production.....Poor.  
Clam Production.....Poor.  
Commercial Value.....Poor.  
Recommended Changes.....Closed 10 Acres.



REPORT OF SANITARY SURVEY

HURST BEACH AREA

AREA C-4

By

SHELLFISH SANITATION PROGRAM  
NORTH CAROLINA DIVISION OF HEALTH SERVICES

I. INTRODUCTION

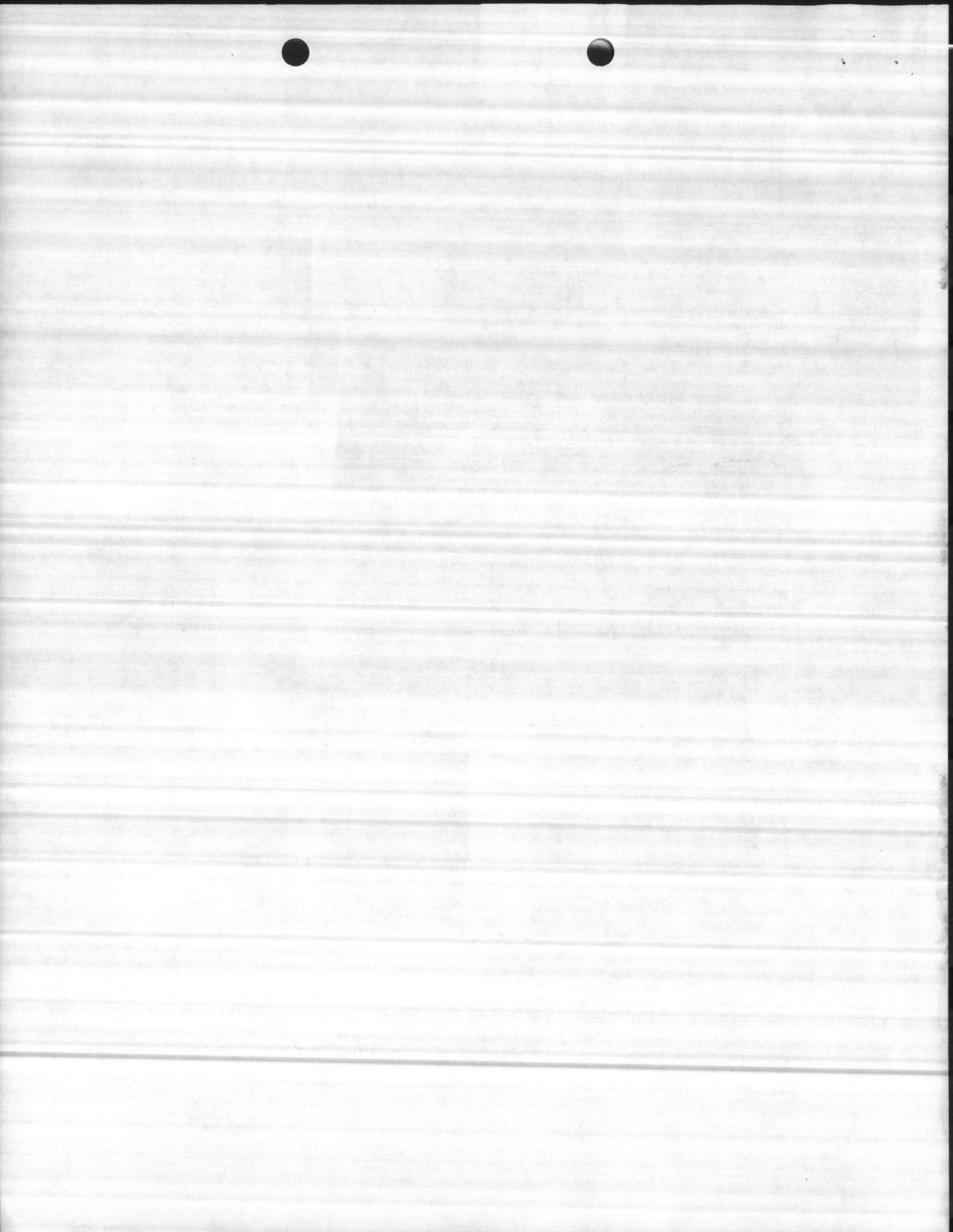
Area C-4 is composed of the waters of the ICWW and its tributaries between Marker #65 at Craig Point and Marker #59 at Shacklefoot Channel. Included in this area are Salliers Bay, Holover Creek, Gillets Creek, Freeman Creek, Browns Creek, Banks Channel, and Browns Inlet. The watershed for this area consists of approximately 16 square miles. The entire area lies within the boundary of a United States Marine Corps Reservation. There is very little shellfishing done in this area, although there are clams and oysters of the "cluster" variety found in Salliers Bay and in the creeks and tributaries near Browns Inlet. (See Exhibit I for map of area.)

II. SHORELINE SURVEY OF SOURCES OF POLLUTION

A comprehensive shoreline survey of Area C-4 was begun on October 15, 1982, and finished on October 20, 1982. Ralph Johnson of the Shellfish Sanitation staff conducted the survey.

Area C-4 is located within the boundaries of Camp Lejeune (United States Marine Corps) in Onslow County. On September 13, 1982, Mr. Johnson wrote the Commanding General of Camp Lejeune requesting permission to visit the base and conduct the survey. Permission for the visit was received on September 23, 1982.

Information on permanent development in the area was obtained from the specific offices responsible. Onslow Beach (barrier island) has the only



permanent development in Area C-4.

The route followed is shown on Exhibit II. It should be noted that the map used in this exhibit does not show all the roads, streets, driveways, and paths in the area.

The southwest boundary between Areas C-2 and C-4 extends from Channel Marker #65 of the Intracoastal Waterway (ICWW), north to the intersection of Hiway #172 and Mile Hammock Road. The northeast boundary between Areas C-4 and D-1 extends from Channel Marker #59 of the ICWW, north to the intersection of Hiway #172 and County Road (SR) #1503 (Triangle Outpost Gate).

On October 15, 1982, Mr. Johnson and Mr. Tim Stamps, Assistant Ecologist, Camp Lejeune, drove over the roads in and around the vicinity of Onslow Beach. Mr. Stamps provided general information on development in the area. All permanent facilities located on Onslow Beach are connected to a sewage treatment plant.

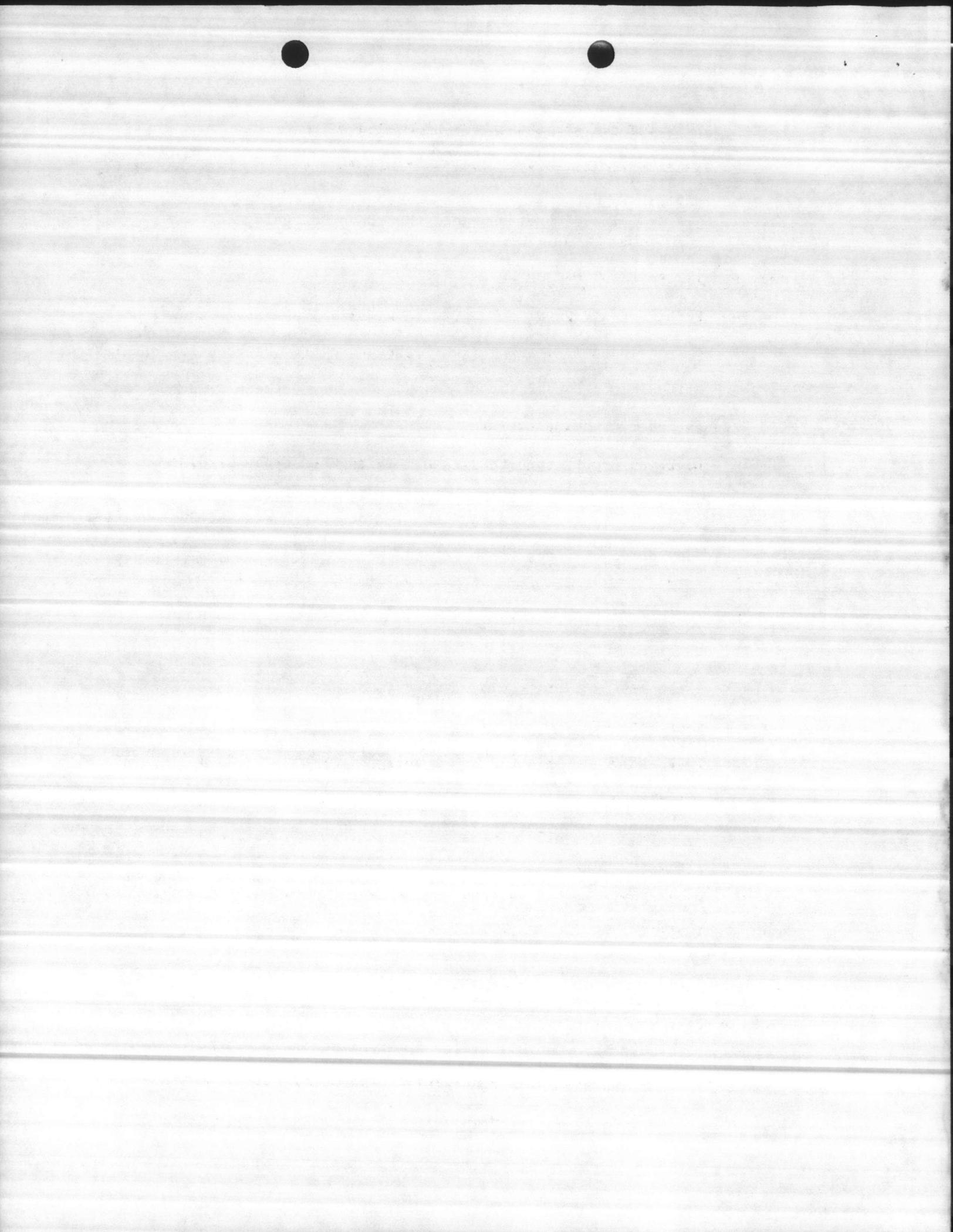
The following is an informational list of a sewage treatment plant, three campgrounds, and a water treatment plant located in Area C-4.

(1) Onslow Beach Sewage Treatment Plant (STP)

- A. Location - The plant is located between Ocean Drive and the ICWW.
- B. Type Treatment - Secondary treatment with post-chlorination.
- C. Maximum Capacity - 195,000 gpd.
- D. Average Daily Flow - 95,000 gpd.
- E. Outfall Location - South side of the ICWW.
- F. General - The plant has a dual pumping system and does not have a plant bypass. Outfall affluent is sampled once a month. The plant has not had any major problems in the past two years.

(2) Special Services Camp Site #1

- A. Location - The camp site is located on the south side of the



ICWW and the northeast side of Onslow Beach Road.

B. Sites - 28 full-service spaces (including sewage hook-ups, water, and electric).

C. Bath-house - One.

(3) Special Services Camp Site #3

A. Location - Adjacent to Camp Site #1 on the northeast side.

B. Sites - 18 partial service spaces (including water and electric).

C. Bath-house - One.

(4) Special Services Camp Site #2

A. Location - On the north side of the ICWW in close proximity to the southwest side of Gillets Creek.

B. Sites - 28 partial service spaces (including water and electric).

C. Bath-house - One (type of sewage disposal unknown).

(5) Water Treatment Plant

A. Location - The plant is located on the north side of the ICWW in close proximity to the southwest side of Gillets Creek, north of Camp Site #2.

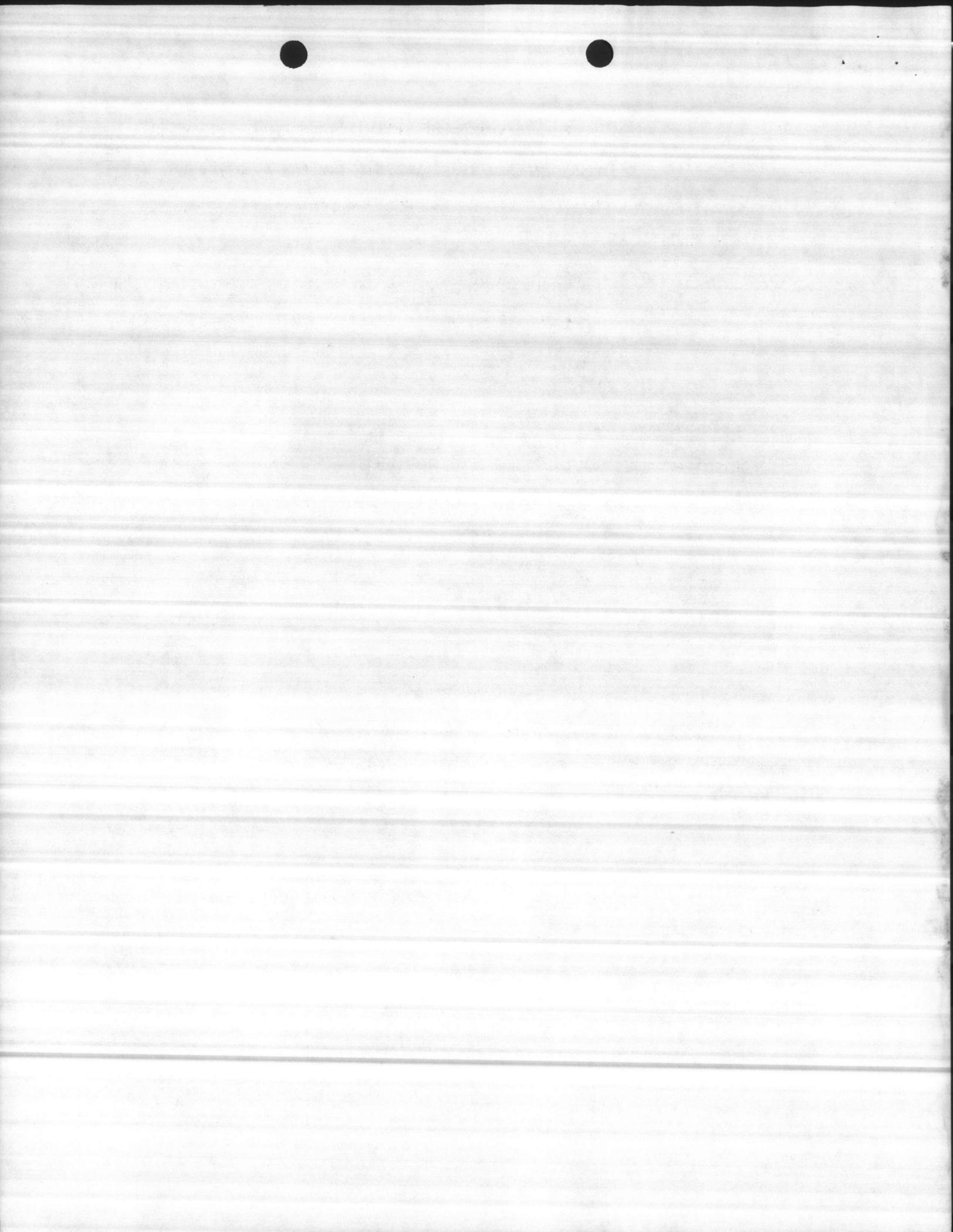
B. Backwash - The backwash is contained in a non-discharge lagoon at the plant.

See the map, (Exhibit III), marked for the physical location.

No chemical or radiological sources were observed during the survey. However, this observation does not exclude their presence.

The soils and vegetation of Area C-4, in general, are consistent with those found in this region of North Carolina.

In summary, Area C-4 drains an undeveloped section of the North Carolina coast. Fecal counts will vary with seasonal run-off and migratory wildlife



movement. Excluding further development in this section of Camp Lejeune, fecal sources should remain basically the same for the next two years.

III. EVALUATIONS OF HYDROGRAPHIC FACTORS RESPONSIBLE FOR SPREAD OF POLLUTION

The watershed of Area C-4 is small and drains, with one exception, undeveloped marshland and woodlands. The one exception is the military complex located at Onslow Beach. This office-barracks complex is served by the only sewage treatment plant in the area. The currents in the area are affected by Browns Inlet located on the eastern end of the area. Salinities range between 24 ppt and 30 ppt, with fresh water run-off having little effect during normal conditions.

IV. BACTERIOLOGICAL SURVEY OF SHELLFISH GROWING WATERS AS INDICATED

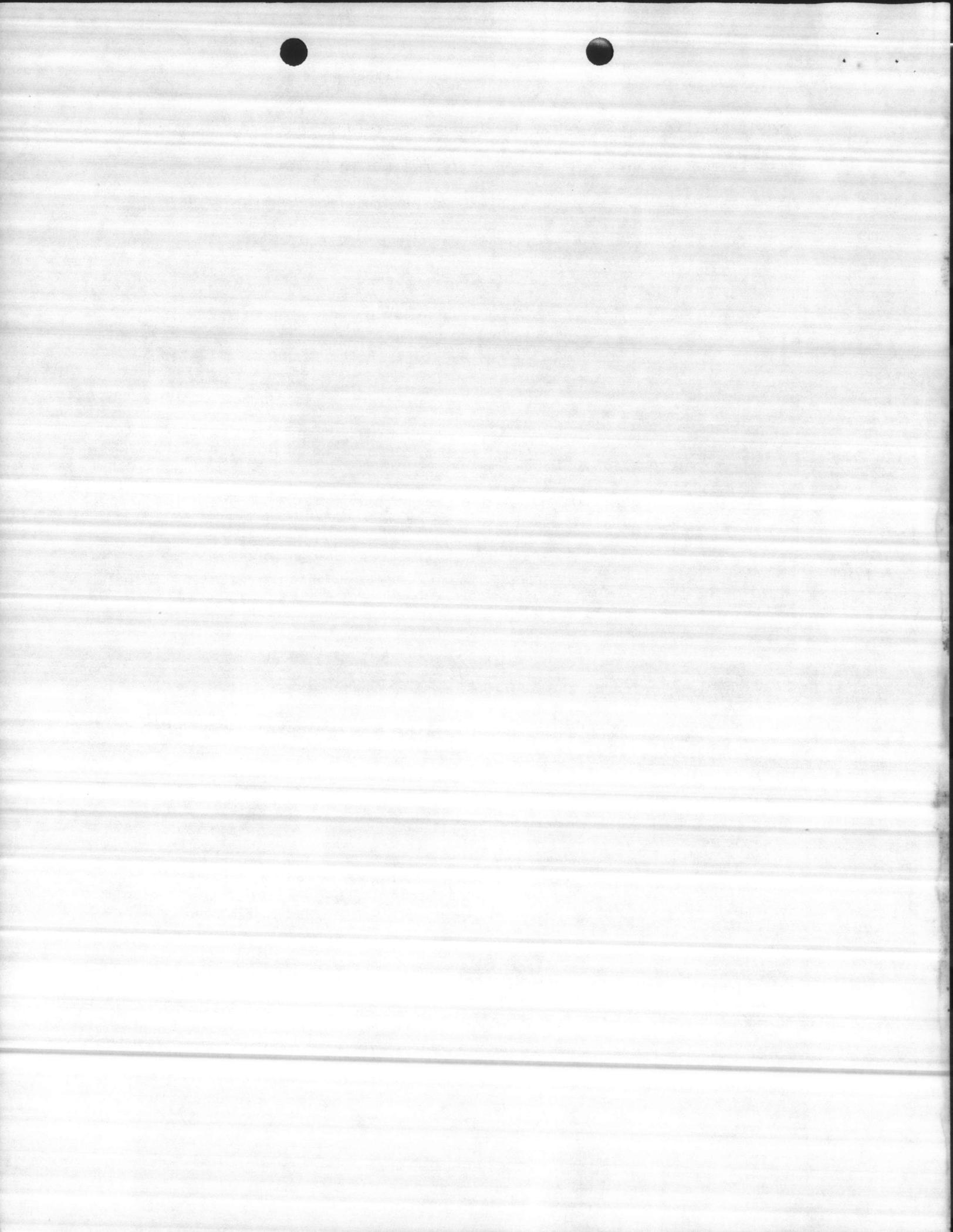
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The bacteriological survey was begun in November, 1981, and concluded in October, 1982. During the survey 120 water samples were collected from 15 water sampling locations. (See Exhibit I for station locations.) Bacteriological results remain much as on previous surveys, with one exception. Station #11 located at the mouth of Browns Creek has a fecal coliform median of 15.4 and also exceeds the 10% rule for fecal coliforms. No other station in the area had unsatisfactory results. (See Exhibit IV for fecal coliform results from all stations.)

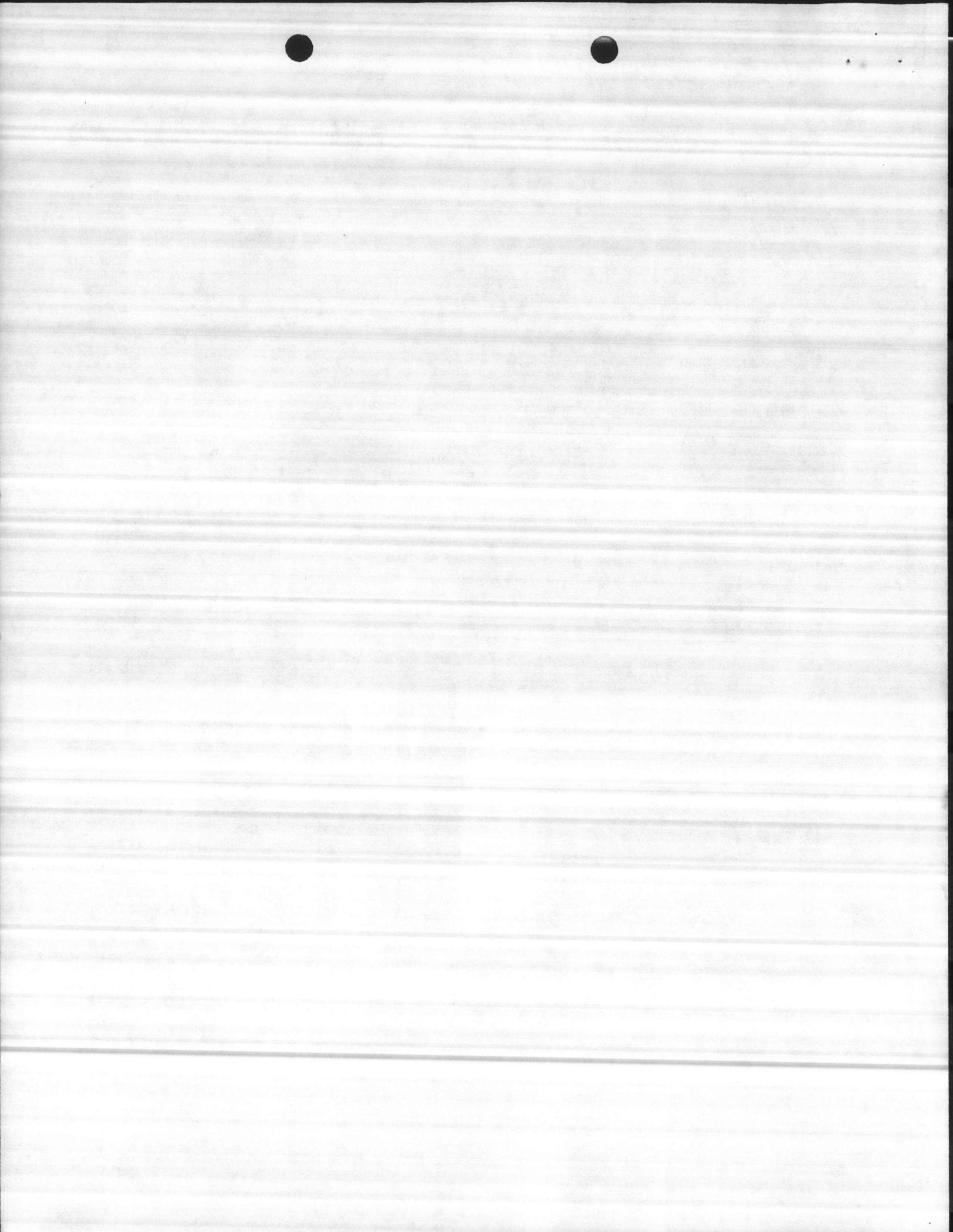
V. SUMMARY AND RESULTANT AREA EVALUATION

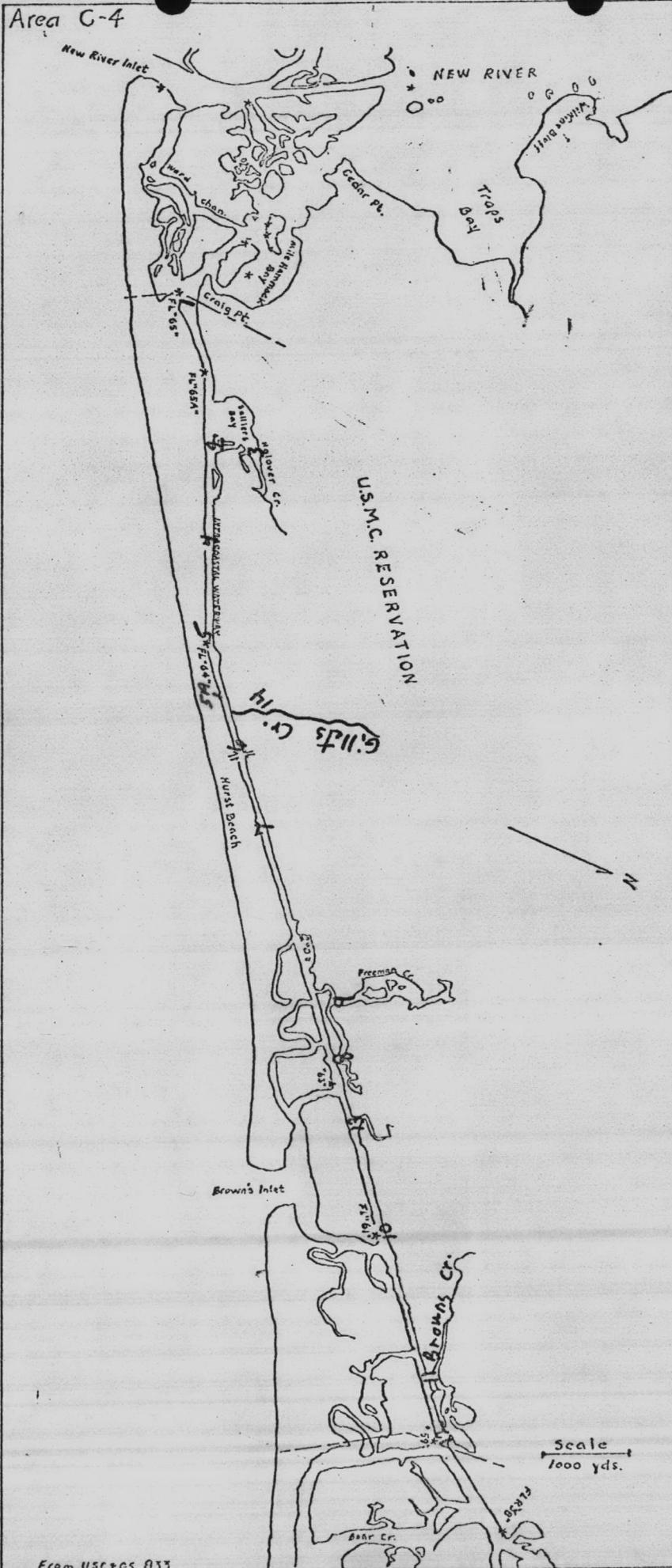
The only unsatisfactory station in the area has been recommended closed to shellfishing. This will close an additional 10 acres of shellfish waters in the area and will raise the total prohibited acreage to 85.

As mentioned in the shoreline survey, there is very little development in this area with the exception of the United States Marine Corps installation at Onslow Beach. This installation is served by a STP that appears to be operating effectively. There are no known sources of fecal coliform



contamination with possible exception of training camp sites located throughout the Marine Base. It should be noted that very little commercial shell-fishing is done in this area. The area is isolated and accessibility is limited. (See Exhibit V for proclamation and closed area map.)



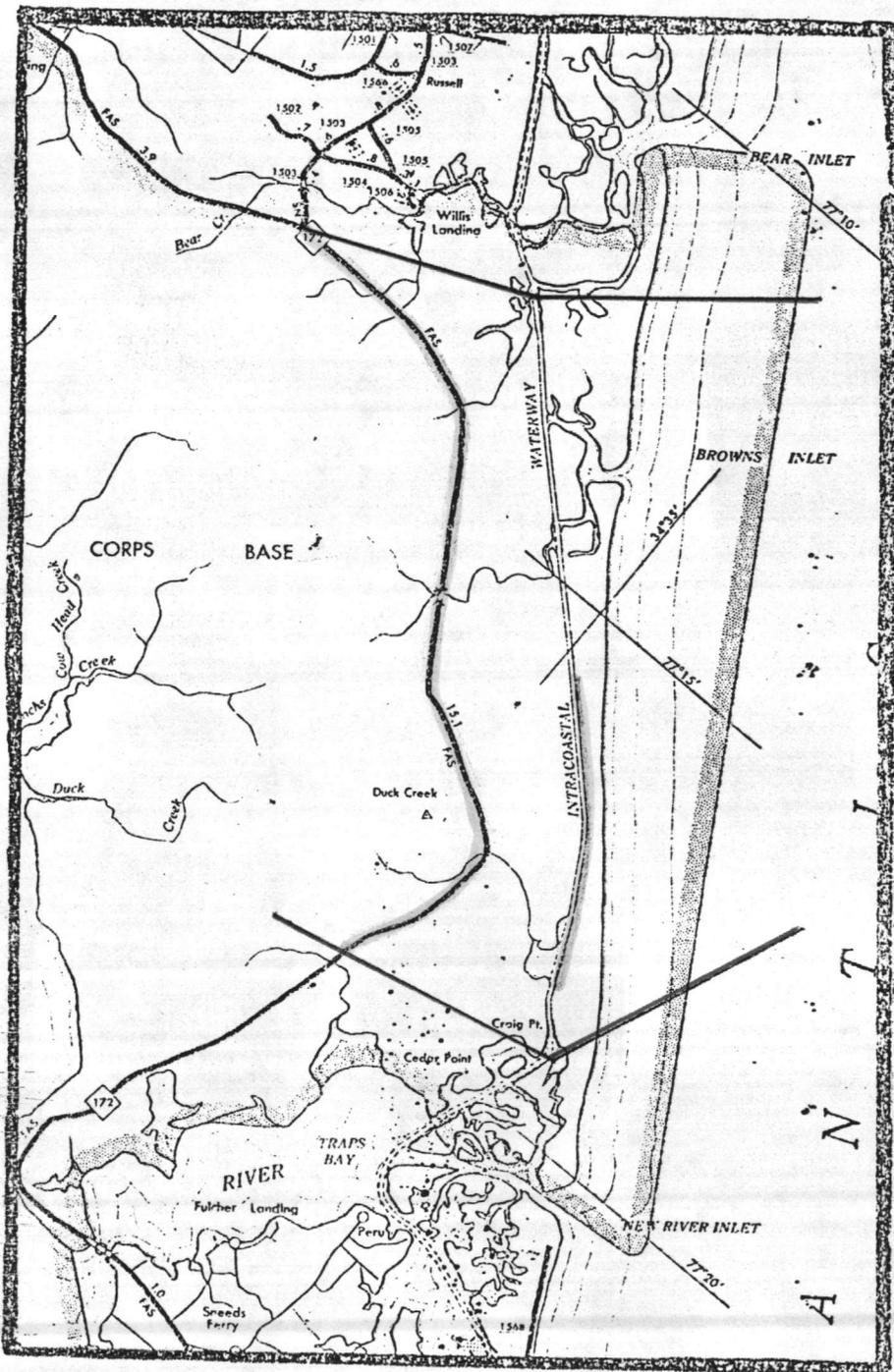




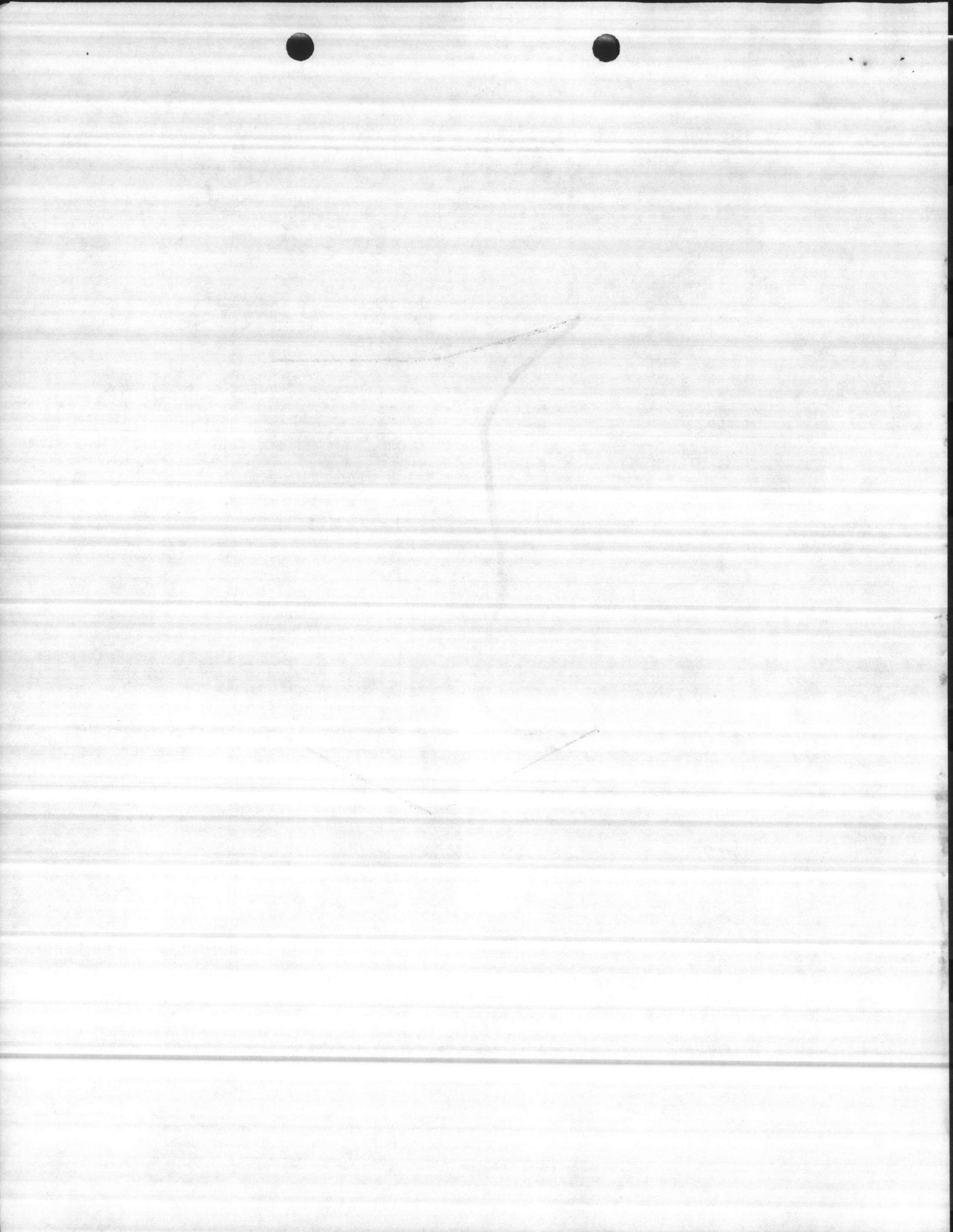
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SHORELINE SURVEY ROUTE

AREA C - 4

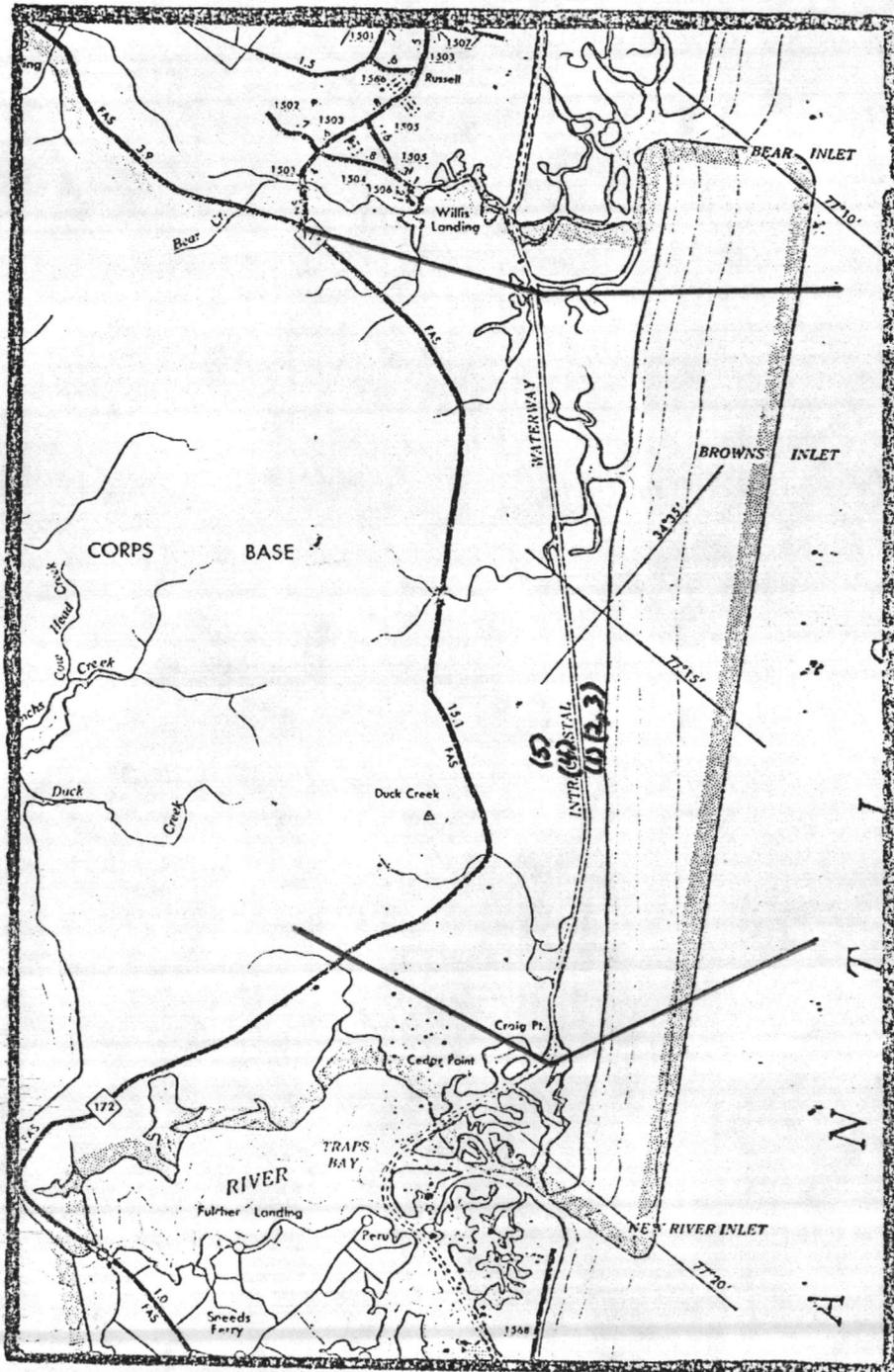


( Green - Boundaries ) ( Yellow - Visual Inspection )

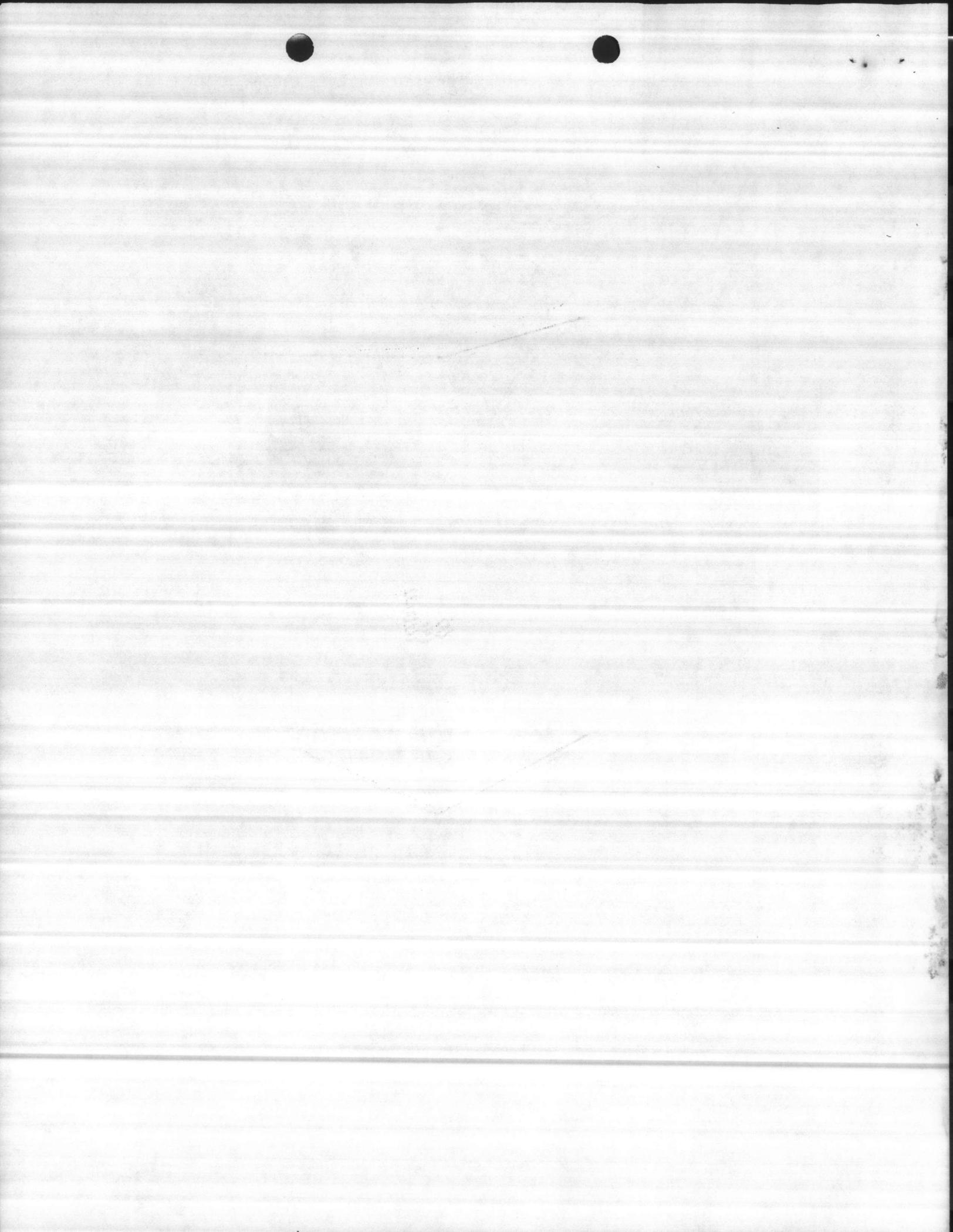


SEWAGE TREATMENT PLANT, CAMPGROUNDS, AND WATER TREATMENT PLANT

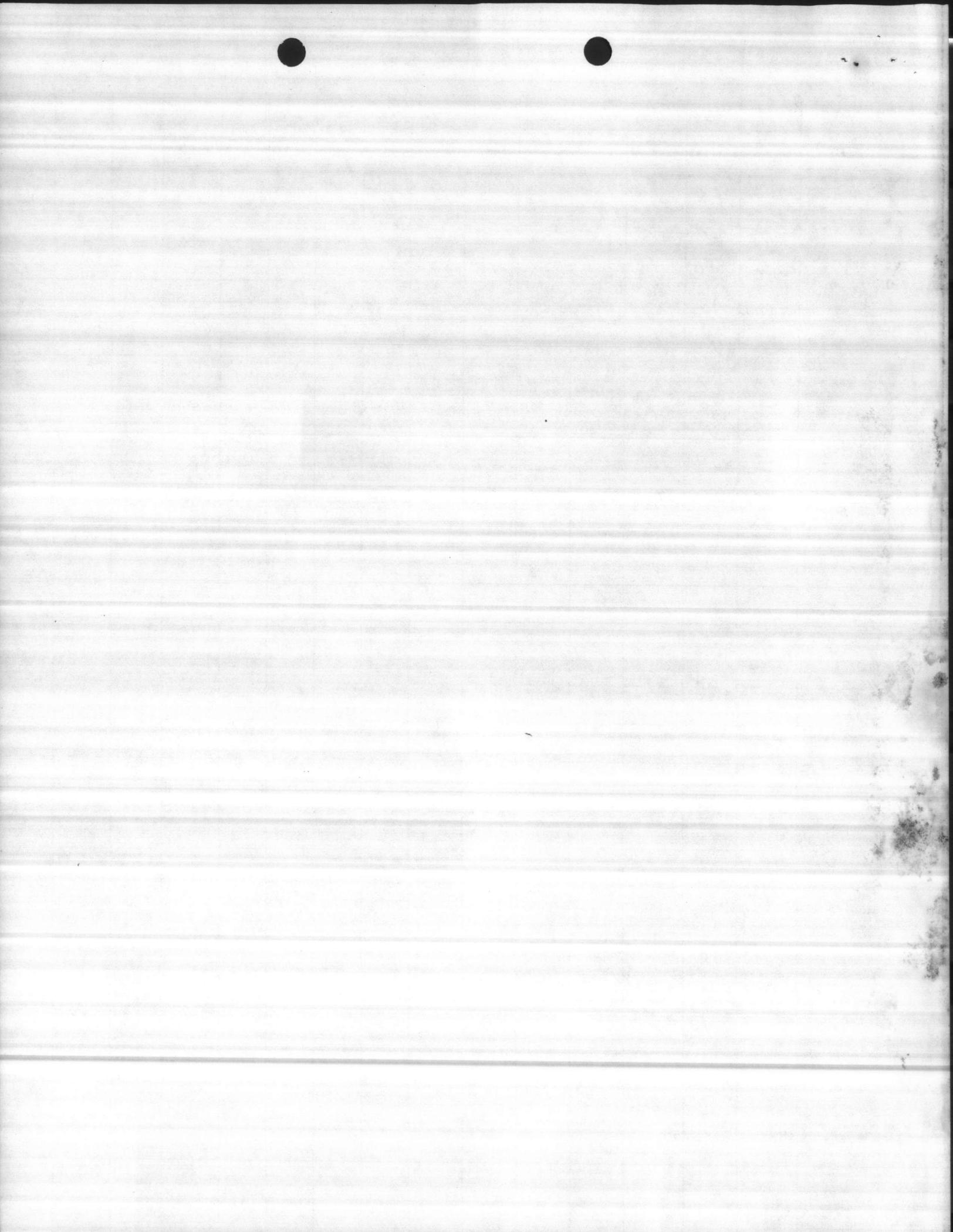
AREA C - 4

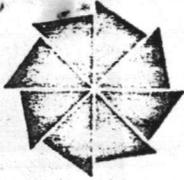


( Green - Boundaries ) ( Red - Locations )









# North Carolina Department of Natural Resources & Community Development

James B. Hunt, Jr., Governor

Joseph W. Grimsley, Secretary

DIVISION OF  
MARINE FISHERIES

O. B. Lee, Jr.  
Director

Telephone 919 726-7021

## PROCLAMATION

### RE: SHELLFISH POLLUTED AREA:

By virtue of the authority vested in me as Secretary of the North Carolina Department of Natural Resources and Community Development, and upon the recommendation of James A. Summers, Acting Director, Division of Marine Fisheries and Dr. Ronald H. Levine, Director, Division of Health Services, North Carolina Department of Human Resources, it is hereby announced that the following changes in shellfish harvesting areas will take effect immediately:

No person shall take or attempt to take, any oysters or clams or possess, sell or offer for sale any oysters or clams taken from the following polluted area:

### ONSLow COUNTY

All those waters upstream from a line beginning at a point on the west shore of the Creek at 34° 37' 06" N - 77° 13' 03" W; thence to a point on island at 34° 37' 10" N - 77° 12' 58" W; thence to a point on the north shore at 34° 37' 13" N - 77° 13' 03" W.

- NOTES: [1] This proclamation is issued under the authority of G. S. 113-182 and N. C. Marine Fisheries Regulation 15 NCAC 3B .1101.
- [2] This action closes approximately ten acres of shellfishing waters and becomes N. C. Fisheries Regulation 15 NCAC 3B .1111 (23) (j).
- [3] Shaded area on map indicates area closed to shellfishing.

BY AUTHORITY OF THE SECRETARY OF THE DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT.

BY:

  
James A. Summers, Acting Director  
Division of Marine Fisheries

December 16, 1982  
8:45 A.M.

PA-10-82/83

/sh

